



## Siberian Electric & Heat Pump

### Electric Rooftop HVAC for 6-10m Zero Emission Vehicles

Growth of the Siberian product platform, BCC has developed a highly efficient and reliable electrical Zero Emission vehicle electric rooftop unit, and heat pump variant. The Siberian Electric and Siberian Heat Pump are self-contained HVAC units utilizing scroll compressor technology that also include the options to include glycol battery cooling or front driver's defroster cooling, as well as secondary options for additional glycol heating or PTC heating if needed.

The Siberian E variants will suit all small to medium sized Zero Emission vehicles that require an electric HVAC roof top system. Microchannel heat exchangers (MCHX), redesigned inside aluminum coils and piping allows for the lowest possible weight while maintaining serviceability and performance. Same interface to the bus roof, and optimal accessibility through the central return air opening to service parts to perfectly meet bus manufacturers and bus operator expectations.

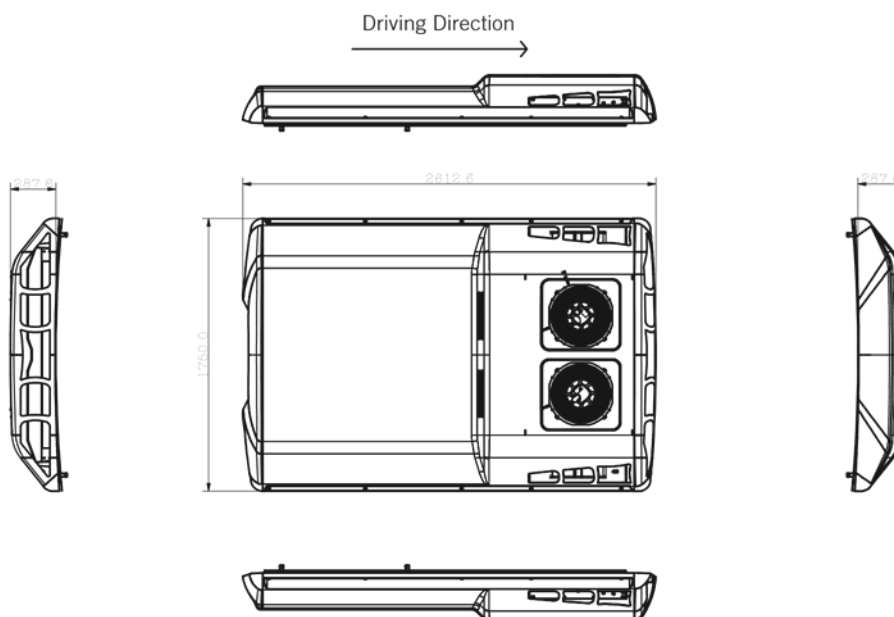


#### Features

- Product family includes:
  - Electric cool only
  - Electric cool with PTC heating
  - Electric cool with Glycol water heat
  - Electric heat pump only
  - Electric heat pump with secondary PTC or glycol water heat
- Slim design (max height 290mm)
- Fully brushless long-life fans and blowers
- Integrated DC high voltage scroll compressors
- Single piece dual hinge cover opens from both left and right side
- Flexible range of options for ultimate product customization and climate control
  - Fresh air options of 0%, 20%, and 40%
  - Integrated battery cooler
  - Front Drivers Defroster Cooling Connections
  - PTC heater option: 10 kW / 15 kW
- Latest BCC Ecotemp Next Gen Control System

#### Benefits

- Multiple variants available to suit ambient or application requirements
- Single rooftop design 6-10m electric vehicles
- Common installation process in assembly
- Reduced complexity in service and spare parts management
- Increased cooling capacity to tackle high ambient conditions
- Glycol water or PTC heating to heat pump allows for extra heating in low temperatures
- Modern appearance reduced total bus height
- Highly reliable and efficient with fewer replacement intervals. Up to 40,000 hours life cycle
- Allows high efficient, silent operation and best performance in high ambient conditions. No additional inverter needed
- Easy to service from both left and right side
- Provide customers the flexibility to select the ultimate climate experience and vehicle management control
- State of the Art Full Climate Control for superior driver and passenger comfort



## Technical Data

	Siberian S-18E	Siberian S-18E Heat Pump
Cooling capacity MAX <sup>[1]</sup>	22 kW	22 kW
Cooling capacity ARI <sup>[2]</sup>	16 kW	16 kW
Heating capacity coolant* (Q80) <sup>[3]</sup>	18 kW	15 kW
Heating capacity PTC electrical* (750VDC)	10 / 15 kW	10 / 15 kW
Length x Width x Height	2610 mm x 1750 mm x 220/290mm	2610 mm x 1750 mm x 220/290mm
Weight	160 kg	180 kg
Air flow (Max)	4,400 m <sup>3</sup> /h	4,400 m <sup>3</sup> /h
Current draw Max (24VDC)	64 A	64 A
Current draw Nom (24VDC)	42 A	42 A
Current draw Compressor (750VDC)	16 A	18 A
Current draw PTC heating (750VDC)	13 / 20 A	13 / 20 A
Refrigerant	R134a	R134a

\* Optional

[1] Maximum cooling condition (MAX) ti 40 °C/ ta 35 °C/ 50%

[2] Nominal cooling condition (ARI) ti 27 °C/ ta 35°C/ 50%

[3] Heating condition ti 20 °C/ ta 10°C